

Downtime

by Chad

Food for thought

GLEANING new information to expand our professional knowledge requires some surprising skills, doesn't it? I'm thinking of the technique of eating at conference receptions, where one needs to manipulate plate, fork, glass, and knife all with two hands (unless you happen to be a Hindu god with lots of extra limbs).

I was doing this at a reception after the Online Information conference, and having munched down to the less appetising bits of food on my plate, I put it down temporarily to give my contorted fingers a rest. Up hustled a waitress, seemingly full of that all-too-common eagerness that her kind have of snatching

the food out of the mouths of customers.

Asked she, pointing to my plate, "Have you finished with this?"

I hadn't, but wishing to please as always, and considering that I didn't much care for what was left on the plate, I replied, "Yes."

She then picked up the plate, peered at it closely, and exclaimed indignantly, "But it's not finished! You haven't finished it!"

She plonked down the plate and marched off, so I didn't get a chance to discuss her theory of dialectics that lets her ask a question and then refuse to accept the answer.

Handy, isn't it?



Go to blazes!

ON the fire hose reel in our office is a sign: "Do not use hoses except in case of fire."

The mind boggles! What on earth do they imagine people would do with them? Spray them all over to liven up an office party? Use them to increase the liquidity of the accounts? More likely to muffle the fire alarm when it goes off spuriously.

I understand there is a prison somewhere in which there are glass cases in the warders' offices, each containing a rifle. On every case is a sign reading: "In case of break fire this."

Handy, isn't it?

A Happy New Year... if you'll excuse the expression

THERE was a cartoon by Pont, published in Punch during the dark days of the Battle of Britain, in which one middle-aged lady says to another over the breakfast table, "Must you say, 'Well, we're still here,' every morning?"

I confess that seems to me the most appropriate sentiment for the New Year — "Well, we're still here."

Reflecting on the economic crisis we are in, I can't think of a time when we weren't in an economic crisis, but I suppose some crises are more equal than others.

Anyway, this is the time of the year for reviews and predictions, and as a public service I will not swamp you with any more. I will certainly not predict that some time in 1981 trade unionists will claim there will be 50 million people put out of work by the microchip by the end of the year, nor will I forecast that Apex and

I can assure you that those were

the National Graphical Association will lead a protest march to the Innos factory in Newport where they will throw their wooden shoes in the step-and-repeat machines. Speaking of the NGA, I certainly will not suggest that Kerr Packer is thinking of buying The Times and bringing in teams of kangaroos to run the new technology printing equipment. He could hardly do that when Sir Keith Joseph has a prior call on the kangaroos to take over the NEB.

It would be irresponsible of me to lead you, to think that IBM is going to introduce, later in the year, its "Z" series, an ecological, energy-saving computer that uses no electricity. Teams of unemployed people would be hired to turn cranks on the side of the machine, and the heat they produce would be an extra boon to the air-conditioning industry.

In all, 1981 doesn't look as if it will be much different from 1980.

Introducing a computer too small to be a VAX, but too powerful to be anything else.

Digital's new VAX-11/750.



implementation. A high-speed COBOL based on current and anticipated ANSI standards. A PL/I in the same performance class as VAX FORTRAN.

Plus highly interactive BASIC, PASCAL, CORAL and BLISS.

Because the VAX-11/750 offers total family compatibility with the VAX-11/780, you can run all your application programs on either system. Using the same data management facilities that include sequential, random and multikey ISAM, FMS for screen formatting, DATATRIEVE for query and report writing.

And to make system performance complete, Digital has introduced its own RM80 Winchester disk, the latest in mass storage technology.

Distributed VAX power.

The VAX-11/750, combined with Digital's commitment to network leadership, adds a new dimension to distributed processing.

You can use the VAX-11/780 for centralised program development, and then run your applications on strategically located 11/750s.

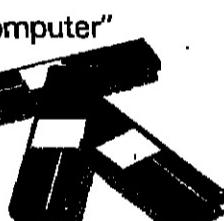
You can link VAX computers together using DECnet™ networking software.

You can even build one comprehensive, corporate-wide network that includes PDP-11s, VAXes, Digital's large DECSYSTEMS, and your own corporate mainframe.

All working together and sharing resources.

State-of-the-art VAX reliability.

The VAX-11/750 is the industry's first "minicomputer" designed with custom LSI gate array circuits. This advanced circuitry means fewer components,



lower power consumption, easier maintenance, and higher overall reliability. In fact, the VAX-11/750 is one of the easiest computers to maintain and service that has ever been developed. It can even be diagnosed over telephone lines from Digital's two Remote Diagnostic Centres in Europe. And VAX computers are supported by Digital's worldwide service organisation with more than 14,000 people in over 400 offices.

Imagine. The VAX computer is now the VAX family.

Now more people than ever can afford to bring Digital's architecture of the 80's into their applications. The VAX-11/750. It will change the way you think about computers. For more information, contact:

Digital Equipment Co. Limited, Digital House, 252-256 Kings Road, Reading RG1 4HS. Telephone: Reading (0734) 583555

It will change the way you think about computers.

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A computer with virtually unlimited programming space, contained in a cabinet so small it barely takes up the corner of a room.

Imagine VAX system power available to small departments. For dedicated real-time, interactive and batch environments.

Distributed throughout your organisation wherever it can improve productivity. And in a whole host of new OEM and end-user applications that were never practical before.

The VAX-11/750, from Digital Equipment Corporation, is so much computer for so little money it will literally change the way you think about computers.

VAX family compatibility.

Despite its size and price, the VAX-11/750 is totally software compatible with the larger, faster VAX-11/780—the computer that has been setting performance standards ever since its introduction.

It has the same kind of real-time response. The same 32-bit addressing. The same powerful instruction set. The same two gigabytes of user program space.

And the VAX-11/750 runs the same VAX/VMS™ Operating System, already proven in thousands of VAX-11/780 applications.

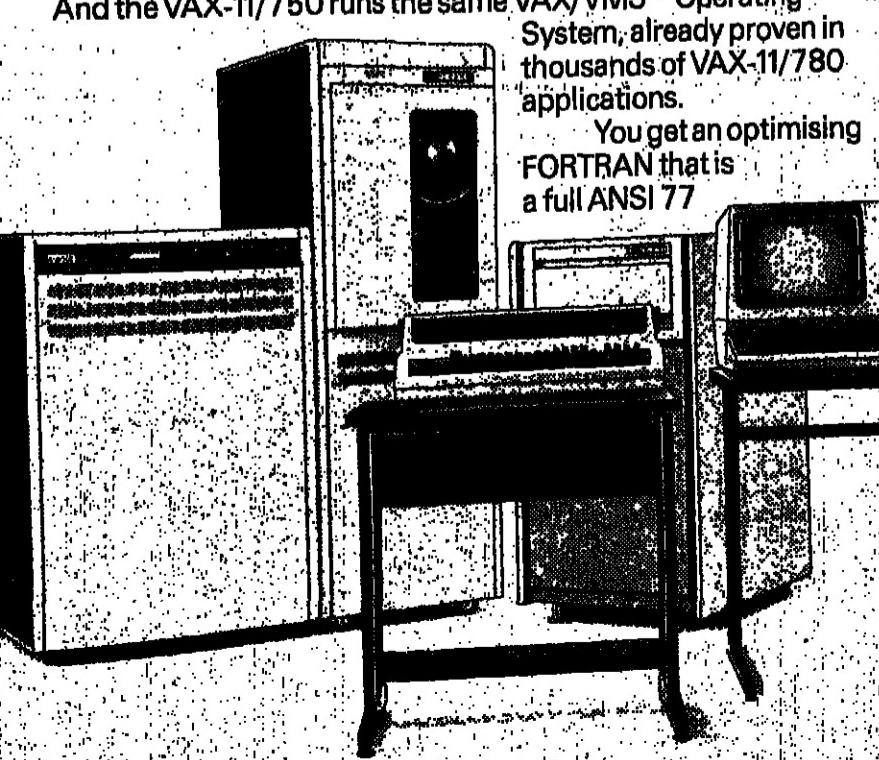
Convergence will be the buzz word, whether it is British Telecom moving towards liberalisation or the user towards a totally cashless society.

EFT will rule, photons replace electrons, fibre optics technology supersedes everything else. DPMs will have to interface with the local IBM diagnostic centre as well as the next pending communication satellite.

With the erosion of the telecommunications monopoly controls, declining costs and user demand for faster communications, the DP manager will also have to make close connections with the local British Telecom manager.

The coming year looks like providing even more change and uncertainty, budgets continuing to be a critical computing factor with cost performance a major consideration.

It may prove difficult to find a better slogan than the 1980 Fortune Award winner: with equality for all in the ascendant, "Equal Rights for Women" will be an integral part of the established DP scene in years to come.



I'd like to know more about the VAX family.
 Please send me literature on the VAX-11/750.
 Please send me literature on the VAX family.
 Please ask your representative to call.

My application's:
 Education Medical Laboratory Engineering Resale
 Business data processing Government Other

Name _____

Title _____

Company _____

Address _____

Post Town _____

Telephone _____

Code _____

CW1

digital

We change the way the world thinks.

GILB'S MYTHODOLOGY

The Blue Sky path to simplicity

SIMPLICITY is our dream, a point illustrated at a recent Info-tech conference in London when the lecturer spoke about measures of software complexity.

A member of the audience won spontaneous applause from other listeners by saying: "I am interested in measures of simplicity."

Common sense

If you feel simplicity inclined, perhaps you can make your simple dreams come true.

Dare to dream about the simplest and most direct solutions to your problems. Don't give up so easily when evaluating practical and economic solutions to your dreams.

For many years I have made conscious use of the "Blue Sky" principle for system design. First, I identify my dream of the simplest and most direct solutions. I try hard to find appropriate solutions and don't give up easily.

The mere fact that clients or colleagues say: "It is impossible"



FOCUS

At the turn of the year...

IT IS traditional at this time of the processing year to delve into the clairvoyant database of forecast and conjecture. Focus must first lean back to review the trends and entrails of the DP year past.

1980 was heralded as the year in which the micro revolution would reach overdrive top. In the event, it was more in underdrive bottom mode with the industry surviving relatively unscathed.

DP magazines have moved in the opposite direction. Industry observers believe that possibly more installation time is now spent reading than operating.

The Computer Users' Year Book achieved record proportions, as did programmers' pay, and robots made a belated climb in the activity charts, surfacing at both Longbridge and Olympia.

Moving to the sharp end of the industry, the long awaited IBM H-series arrived finally, complete with Dyadic, design and internal waterworks.

A hot line to the local plumber must be added to emergency phone listings; Amdahl maintained their reputation by announcing a rival product within hours of the 3081 release.

It might still surprise some readers to realise that the programming needed to perform this Cloud Nine dream was initially about 40 lines of Fortran written by a trainee.

Later, we elaborated it to several hundred lines of code in order to improve its "intelligence" (like knowing that VII and 7 were the same thing).

The act of stating system design goals in quantified, but higher-than-known-state-of-the-art levels, format does provoke either solutions to the design problem, or a formal basis for recognising to which Cloud you should descend.

Gilb's Hypothesis: If you design bottom up with ambition levels, you will remain at the bottom; if you start design on Cloud Nine, then you will probably achieve results at a higher level of ambition than at the bottom level.

In another similar dream, we designed a system for a hardware wholesaler. The original designs of several suppliers stipulated a 10-digit number for all products with a check digit, of course.

The problem was that none existed, and the wholesaler had been using the product codes found in catalogues of major international hardware suppliers.

Our Blue Sky dream, shared by the company president, was to avoid the problem of numbering several hundred thousand products. The exact Blue Sky dream was to use whatever they had been employing.

We settled on a design using simple abbreviation (of the supplier), VOLVO becoming Vol. It was unique, combined with the product code used by Volvo (for example PC-256-X).

The simplicity of this solution was obvious, involving no changes in catalogues, ordering

procedures or warehouse numbers.

Some readers might want to know if there is a more formal method for Blue Sky design-thinking. There is and I will describe it in terms of the Design by Objective methods.

System Attribute specifications are set to Blue Sky levels. For example, the maintainability goal is set to "one second for repair of at least 50% of random logic errors" and the search for appropriate technical solutions starts.

Traditional methods are inappropriate. Try structured programming, and then less traditional technology such as having an independently written extra software logic module with different bugs and a supervisor module to look at output differences from the two "distinct programs".

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Peering into the data bowl, lines cross and networks appear to form as 1981 looks like being the year of telecommunications.

Convergence will be the buzz word, whether it is British Telecom moving towards liberalisation or the user towards a totally cashless society.

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THE Post Office announced plans for a large scale computer-based message switching network capable of dealing with 125,000 telegrams a day and involved major companies in Great Britain. Siemens unveiled a new VLSI European challenge to IBM with its revamped 4044/45 system, supplemented by the 4044/36 and 151, the latter three manufactured under licence from RCA. Prime Minister Edward Heath raised the contentious issue of computer sales to the Soviet Union with US President Richard Nixon during his pre-treaty visit to the White

House — with a NATO-embargoed £8 million ICL order firmly in mind. London-based SIA envisaged reducing staff by 20% involving some 30 people, early in 1981 following a revised estimate of business expansion, scaled down from an original 30% to 35% in the company's latest projections.

Another company shedding computer staff was Berk Ltd, whose members with Steedley and Co. of Worcester meant eight redundancies following its decision to employ a computer bureau service to replace its ICL 1901A installed

in 1978. The company's latest move came in November when it announced the closure of its computer bureau service, which had been operating since 1979. The closure will affect 12 staff members, leaving 10 in the company's computer department.

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20 A premium item in the Add Value range.
25 An optional item in the Add Value range.
30 An optional item in the Add Value range.
40 An optional item in the Add Value range.
50 An optional item in the Add Value range.
60 An optional item in the Add Value range.
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140 An optional item in the Add Value range.
150 An optional item in

PROGRAMMERS' PAGE

Eleven for 1981

by Pamela Rowe

BY THE time the average programmer becomes one, he's usually given up making New Year resolutions. But for those few souls left with natural optimism here are some suggestions for 1981:

Read through the computer papers, particularly CW. It's surprising how much you can learn.

Enthusiasm for new projects is hard to maintain and even when felt, is sometimes concealed behind a cautious manner.

Worth cultivating though, both for your own benefit and the light it sheds.

Standards — come to terms with the obscure bits that bring a glaze in your eye. It may take an effort to get past the terminology especially if it's not something you often use. But you can bet your boots that when you do need it, you won't have time.

Oops — mistakes are inevitable, but they can be cut down. Don't ever rush, unless it is a real emergency.

Learn a new language. Too late for evening classes now, but there are plenty of good books around.

Understand the analyst's need to amend, when he presents you with the tenth (or more) amendment to your mutilated program. He is only passing the pressure down the line.

Test ad nauseam for every conceivable contingency. Murphy's law states that any loophole will always come up during a live run.

I and O, 0 and 2, S and 5. Make a note (written) always to distinguish between them, always use a sharp pencil, always write clearly, legibly and large.

Ops usually have good reasons for crashing your program test

runs, even when it is only for lack of a nil (sorry, card). Annoying, frustrating, yes. But not a case for venting your spleen.

Notes — make them copiously as reminders to yourself and as records for those yet to be employed in the DP department. A few lines of info in the documentation or even better, comments in the program, can create instant drama in the night of non-comprehension.

Stick to your guns when time-scale and panics are not reasonable. As the last in the line before runtime any hiccups, delays, etc tend to accumulate in the programming schedule. Co-operation within the DP department is essential, but don't make the programmer carry the burdens of the world.

HAPPY 1981

A quiet message in store for the shoplifter

SHOPLIFTING in the run-up to Christmas has been a cause for concern both for the overtemped shopper or confused shopper and the struggling retailer. Now an American company claims to have found an answer in the shape of the Black Box, also known as the Mark VI Audio Subliminal Processor. This whispers, subliminally below the muzak, messages like "I am honest, I will not steal." When this is broadcast 3,000 times an hour across the store, it will, says its originator, Dr Hal C. Becker, reduce shoplifting.

Dr Becker's company, Behavioural Engineering, is in the business of altering human behaviour, voluntarily or the other way. Many psychologists, though, dismiss the whole idea, and there has been a continuing controversy over the rather inconclusive evidence, since the idea was first mooted 20 years ago.

Guide

Dr Becker is convinced, however, that his products do work and the theory behind them is sound. "The messages produced by the Black Box for example, can be used to guide human behaviour."

The Box uses digital speech synthesis circuit boards designed and programmed by Telesensory Systems, a privately-owned Calif-

onian company. The messages are formed by digital speech produced from encoded data. Actual speech is encoded, compressed and stored in ROM until required, when a synthesizer chip expands and reconstructs the data, converting it to an analogue signal to drive a speaker. A multiplier adjusts the volume to a flicker below the background music. The messages are inaudible — but only just.

Ethics

Telesensory can program the Box for a variety of uses. One interesting possibility is a subliminal "My job is important," aimed at office workers everywhere to make them work harder. Other installations may be in medical or dental clinics, banks, or travel agents (you will fly Pan-Am). It may also help in the traumas of giving up smoking or losing weight.

A group of researchers from Stanford University and SRI International founded Telesensory in 1970. Its first ventures were into high technology aids for the blind and mute, then six months ago the speech synthesis division was formed. Now the company relies on US government money to support some of its R&D work.

The ethics of subliminal broadcasting have come in for a lot of discussion. To date there is little in the way of laws or regulations gov-

erning how messages should be used. Becker concedes that once the Box is installed he has no control over its use. "The critical controls are not available to the front panel, but one could get into it and change the setting — it's not a bank vault."

Asked if it was possible to fool the machine, Seaman said that if silly information was fed in, the computer halted and asked if you really wanted to carry on. If so, it flashed out an "advised not to proceed" message.

Becker says that his company will only sell the Black Box to "good" customers, which means, he says, no religious or political groups.

Powerful

But who defines "good"? And if it is a question of programming people rather than machines, shouldn't they at least be aware of it? Becker believes that notices displayed to the public where subliminal messages are used, will cover the case. If he is right and his products do work, they will certainly be a powerful tool — or weapon — in hands held by the law. At the moment this is all playing place in America, but things have a way of crossing the water.

Seems quite a contradiction to the current mood of consumer protection.

livery and field upgrade to the 44 during 1981.

One of the advantages over the 4341 Group 2 underlined by Magnuson is that the 44's main memory can be expanded in one megabyte increments to 16 megabytes while the Group 2 user is limited to choosing between two, four and eight megabytes.

The number of channels on the 44 can be increased from six to 16 and two of them offer the three-megabyte data rate needed to support the IBM 3370 and 3375 disc drives and their controller, the 3380.

The 44 supports DOS/VSE, VS1, MVS/SP and VM, the same operating systems as the 4341 Group 2. It can also run systems not supported by the IBM machine — DOS, DOS/VS and all releases of VS1 and VM370.

The 44 outperforms the IBM 4341 Group 1 by between 1.5 and 1.7 times compared with ratings of 1.3 and 1.1 assigned to the existing M80/43 and 42 models.

Magnuson quotes £160,000 for a 44 with six channels and two megabytes.

Lambie reckons that 1981 will be a difficult year but doesn't anticipate any mergers between the larger agencies. He thinks that some of the smaller outfits could go to the wall and says: "Two people can run a successful agency but when business is difficult, the small firms get a decreasing proportion of what is available because they have less marketing clout."

Computer people are better off than most, and you can be sure the agencies will be plying their trade this time next year. I hope you are too — and wish you a happy and prosperous New Year.

According to the seminar organisers, the one-day event should interest universities contemplating or already running courses on Unix and for actual and potential commercial users.

The seminar contact is Judith Fletcher, Keen Computers, 5 The Poultry, Market Square, Nottingham NG1 2HW. Tel: 0602 583254.

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Appointments

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Appointments

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to £10,000

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The current hardware consists of IBM System 34 computers plus a range of mini computers. The main area of activity revolves around first-time users. Application areas are extremely varied and successful applicants can expect a diverse and rewarding career path. The areas of involvement are the development of RPG II systems but other project areas include Basic + and Cobol.

If you have up to 18 months' experience of either RPG II, COBOL BASIC + and you have had systems experience albeit limited, then the company concerned would like to see you. You should have the ability to communicate at all levels and have clients liaison capabilities.

In addition to an above-average salary the company can offer 4 weeks' holidays, car expense account and car-parking facilities.

M.4388

ASSEMBLER PROGRAMMERS

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to £10,000

A very successful business in the publishing industry requires Assembler programmers to complete its small and friendly team.

The current hardware consists of a 360/50 working under DOS and GRASP but this is expected to be upgraded in the New Year to a 4331 using DOS/VSE.

Successful applicants will be expected to familiarise themselves with current applications but will principally be involved in new work.

The company is engaged in the mailing of company products, the maintenance and updating of their mailing lists, the continuation and enhancement of their accounting routines with complete services to the publishing industry.

Their requirement is for IBM Assembler programmers who have the necessary experience to undertake projects with the minimum of supervision and candidates who fulfil this requirement may have as little as 18 months using Assembler.

Salary will be based on experience. The company also offer 4 weeks' annual leave and season-ticket loans.

D.4896

SENIOR ANALYST/PROGRAMMERS

Borehamwood

Negotiable

This company is soundly established and extremely successful in the area of selling and support of mini- and microcomputers, particularly in the commercial, first-time user market-place.

There are three positions available of which two will be for the support team covering the general London area and one covering Herts. and East Anglia.

Applicants for these posts must possess a good working knowledge of basic accounting applications and will have controlled at least one major project accounting applications and will have controlled at least one major project where supervision of a support team was necessary. Proof of ability to liaise and effectively deal with clients and the associated areas one would expect with project control will be an advantage.

The successful applicants will join a fast growing company which offers excellent career development opportunities with all necessary additional training.

The company package includes a very competitive salary, car allowance, expenses, annual bonus, 20 days' holiday per annum, free life insurance and pensions schemes.

R/4897

PROGRAMMERS ANALYST/PROGRAMMERS

£6-£10,000

Several banks and finance houses in the City of London are looking for Programmers, Senior Programmers and Analyst/Programmers as follows:

INTERNATIONAL BANK (West Central), operating twin PDP 11's seek experienced staff at all levels for development of systems in the New Year. Applicants should either have considerable AIMS experience or alternatively exposure to BANKING SYSTEMS in a company using BASIC +, BASIC +2 or COBOL.

COMMODITY BROKERS (East Central) offer ground floor opportunities in a new POP installation for top-quality BASIC +2 programmers and Analyst/Programmers. A purpose-built suite is being prepared and conditions of employment will be superb.

MERCHANT BANK (East Central) seek a programmer to supplement their existing team. A large PDP installation running under AIMS provides a good opportunity for young, lively programmers who must be able to demonstrate AIMS or BANKING APPLICATIONS experience. Each of the companies mentioned provide very good employment packages which include RESTAURANT FACILITIES, LOW-INTEREST LOANS and either MORTGAGE SUBSIDY or BONUS.

R/4837

Datascene International Limited,
Sceptre House,
169-173 Regent Street,
London W1R 7FB, Telex: 25851.

COMPUTER WEEKLY

Classified Department, Quadrant House, The Quadrant, Sutton, Surrey SM2 5AS

Box Numbers: Should be addressed to the box number in the advertisement c/o Computer Weekly at the above address.

Classified Rates £10 per sec
19 x 3 cols = £672.39 x 3 cols = £1,470
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OUR CLIENTS ARE A SUBSIDIARY OF A MAJOR U.K. AND INTERNATIONAL GROUP. THEY OFFER SPECIALIST CONSULTANCY SERVICES WITH A HIGH REPUTATION IN THE U.K. MARKET PLACE AND WISH TO FILL THE FOLLOWING APPOINTMENTS:

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CAR ALLOWANCE

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c.£9,000 PER ANNUM

- CAR ALLOWANCE

IF YOUR BACKGROUND AND EXPERIENCE RELATE TO THE FOLLOWING REQUIREMENTS, CALL OR WRITE TO US NOW TO ARRANGE AN EARLY INTERVIEW

1. Sound background in the design and implementation of Real-time and on-line applications based upon mini computer hardware.
2. Experience associated with the design and/or implementation of Word Processing Hardware/Software although not essential, will prove highly attractive.
3. The ability to work well with all levels of user management and other personnel.
4. The desire to be associated with development in an environment able to utilise technical skills to the full.

THE ABOVE OPPORTUNITIES OFFER ATTRACTIVE CAREER PROGRESSION FOR THE FUTURE WITHIN A COMPANY COMMITTED TO DEVELOPMENT AND GROWTH IN 1981

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D.P. Appointments & Contract Personnel,
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Sussex BN6 9RP. Telephone: Hurstpierpoint (0273) 833848.

INBUCON

NEW YEAR NEW JOBS

R19 Salesman — c. £18k

on quota no top limit.

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Dynamic expansion OEM.
Exceptional growth, commercial shopfloor/word processing systems.
Excellent "KIT."

Applicants

Real salesman Commercial Systems knowledge, able to take over existing productive territories in shortest possible time.

R20 Engineers — £ Neg.

LONDON, BIRMINGHAM, MIDLANDS

NORTH WEST & NORTH EAST Company

Market leader. Mini/Micro top grade equipment. Excellent facilities. Many advancement opportunities.

Applicants

Minimum 2-3 years' experience Mini/Micro.

R21 Salesman — £8k Base

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Company Data Communications market leader. Exciting products dynamic growth patterns.

Applicants

25-35, minimum 2 years' sales experience. Able to sell to Communications Design Engineers. Will consider outstanding commercial experience.

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Company Market leader. Topclass software. Excellent earnings package progressive career paths.

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Real Business Systems experience. Must be able to communicate at all levels. Applications experience — Commercial or Financial (banking) or Data Communications.

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24-hour enquiry recording

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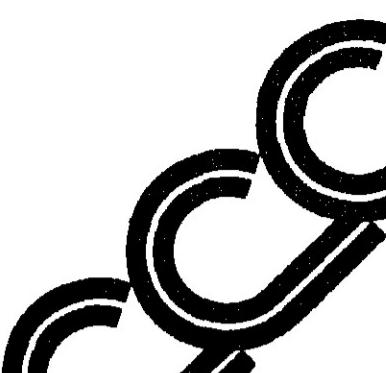
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CONSULTANTS ANALYSTS PROGRAMMERS

Croydon
London/City

Salaries to £15k

We have been retained by our client, a major international Services Company to help recruit a number of key people at all levels to fill vacancies at their London offices.

All positions require at least 2 years' practical experience of Systems and Programming work. Candidates should have a prime interest in developing systems and solving business problems.

Flexibility is vital as our client mixes programming, systems work and consultancy, therefore using each person's skills to the full.

Successful candidates are expected to participate fully in the development of the company, and as all promotions are from within, candidates should be positively career conscious.

Excellent salaries and attractive benefits are offered by this fast-growing company which include: Share Purchase Scheme; Free Medical Insurance, Free Life Assurance, Free Pension, Profit-Sharing Scheme, Relocation Assistance, as well as influence in company policies.

CW 1/1

SYSTEMS DESIGNERS PROJECT LEADERS

North Hertfordshire

We wish to recruit on behalf of an international design and manufacturing company — a market leader in the Process Control Industry.

Our client develops computer systems using their own hardware and software products built around PDP-11 processors.

A real opportunity exists for Systems Designers and Project Leaders to develop packages and products.

Candidates should have the ability either to project teams or design software systems.

LONDON: 8a Lower Grosvenor Place, London SW1
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DUBLIN: Canberra House, 24 Lower Leeson Street,
Dublin 2
Telephone: (0001) 789577

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Salaries to £15k

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New Year — New Jobs

'Demand is still there for good people in 1981'



Les Clark is manager of recruitment services with Knight Programming Support. Although he has reservations about the immediate future he says he is "bullish".

PAUL FISHER: Can you tell me what has happened in your business this year and give me your thoughts on the immediate future?

LES CLARK: I would say that the contract market, which is basically Knight's strength, has been fairly flat for most of this year. In the Christmas run up period, we experienced a lot of activity and we are anticipating a mini-boom on the contract side in the New Year.

PF: Starting from January?

LC: Yes. We've got dozens of companies looking to take on contract people in the New Year. What tends to happen is that financial years end on December 31 or March 31. The companies have to work within their budgets but when they get their new allocations — especially some of the American companies — away you go as they open up new projects.

Overseas

PF: Has the recession made much difference to you?

LC: Yes, we've felt the draught like everybody else. In terms of Knight Programming we have an advantage

that many people out in the marketplace don't have. We can change. During a recession we focus our attention on the sectors of the market which aren't being affected so much. We can go for growth areas overseas and we've opened a New York office this year. To some extent our overseas offices are a hedge against recession although the strength of the pound has hit us. Half of Knight Programming's turnover is from outside the UK.

Risk factor

PF: Do you offer pension facilities?

LC: No, we don't. We're looking at a health insurance scheme.

PF: And holidays?

LC: No, we don't give holidays. That's the nature of the total group turnover. Placements are 90% UK, I would say.

PF: Do you see contracting as having a healthy long-term future?

LC: There will always be a demand for contractors in certain specific situations. If you have a converser from, say a 1900 to a 4300 you will need a lot of basic manpower over a six to eight month period.

Conversers are a prime target for our contract marketing. Other areas are databases and the highly technical parts of computing.

Looking to 1981, I would see that trend continuing. We've opened up a regional

office in Birmingham because there is a lot of business up there.

LC: It isn't pioneering any more. We've got contractors who have been with us for seven years. We keep rolling them round and can offer them almost as much security as they would have had if they'd been in a full-time job.

Optimistic

The operational market is dying and although we make a living, I don't see it taking any significant upturn.

PF: Is that due to the recession or to technical changes?

LC: Both. In terms of 1981, I wouldn't anticipate any extra mileage in the operational side of the business.

PF: And programming?

LC: On the programming side, I would be cautiously optimistic. We've got a lot of vacancies. If 500 of the right people walked into this London office today we could place them. We could place 100 people through our Man-

chester office and 100 through Birmingham.

There's always a market for good people who, for instance, know about CICS, IMS and DL1. In a recession, we gear ourselves up to possibilities at the more senior end of the market and there is still a lot of activity at that end. We put in a recent ad for a data processing manager and had over one hundred good replies.

PF: What about school-leavers?

LC: The market for school leavers is a very cruel one. It is unsympathetic to TOPs because trainees.

PF: Why is that?

LC: We are an agent and obviously fulfil our client's requirements. If our clients want trainees, they are falling off the trees so they don't need to use us.

PF: And training?

LC: The responsibility for training lies in the schools, the companies, the agencies possibly?

PF: Do you predict any mergers within the agency business during the next year?

Responsible

PF: Where do you think the responsibility for training lies? Is it with the schools, the companies, the agencies possibly?

LC: When times are hard, people tend to regard training

as an expendable overhead. Schools are more aware of computing now and a lot of curricula contain computing studies.

PF: Would you like schools looking to the marketplace and saying, for instance, that Cobol programmers are needed?

LC: They do and nobody wants to take them. I've interviewed TOPs' people who are mature and dying for a job, but nobody gives them a chance. They're away once they get a couple of years' experience. I don't see any softening in that situation in 1981.

PF: Does everybody you place have experience?

LC: Yes. On the contract side, we won't touch people until they've had about four years' experience. If we're putting out contractors to clients, they would demand from us that they've got certain levels of experience.

LC: Are wages still rising?

PF: Do you predict any mergers within the agency business during the next year?

As soon as the New Year comes and things relax, the demand will still be there for good people.

FACILITIES MANAGEMENT BUSINESS SYSTEMS CONTRACT STAFF SUPPORT RECRUITMENT CONSULTANCY
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* Budgetary Responsibility for a Segment of Corporate Development.
* Telecommunications, Message Switching, Word Processing, Personal Computing.
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CHIEF TECHNICAL PROGRAMMER

Watford

* Good IBM background.
* Probably will have CICS Experience.
* To act as Internal Consultant to Project Teams.
* Multi-National Company.

C. £11½K

MVS SYSTEMS PROGRAMMER

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* To Quickly Take Over Department.
* Must have MVS Sys. Gen. Experience.
* Preferably with CICS/NCP/VTAM experience.
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Totally Negotiable + Bank Perks

* COBOL Programmers, Circa 2 years' experience.
* To work on Development of Banking Systems.
* Hopefully CICS Experience, but not essential.

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computer services

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* To Train in CICS/DL1.
* Circa 2 years' COBOL Experience.
* Good Opportunity For Friendly Person.

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Pounds Unlimited

* To Develop Communications System and Operating Systems.
* Technically Competent.
* Preferably experience of PDPs or Micros.
* Excellent Company, Perks and Prospects.

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London and Essex Pounds Very Negotiable

* DOS/VIS Systems Generation Experience.
* Must have Assembler.
* Preferably with CICS.

Ref: DJ 80207

SENIOR ANALYST/PROGRAMMER

Central Middlesex

to £10K

* Preferably COBOL, IBM DOS/VIS Experience.
* 2 years' Involvement in Analysis.
* Mostly Analysis Work, leading to Project Management.

Ref: DJ 80208

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1980s

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COMMUNICATIONS SYSTEMS**
Circa £12,000 per annum

Our clients are an International Group engaged in developing technology within the communications and distributed area processing fields for locations in the United Kingdom and overseas.

The increasing demands being placed upon them have created the need to increase the number of technical personnel within their division. Telephone or write to us now if you can portray skills in some or all of the following areas:

- ★ Two years-plus Assembler programming experience working in a data communications environment
- ★ Experience in designing and implementing software for Mainframe and/or minicomputer hardware
- ★ Experience working with SNA implementations or emulations
- ★ Software and quality assurance

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Greenock House, 19 Cuckfield Road, Hurstpierpoint,
Sussex BN6 9RP. Telephone: (0273) 833818.

INBUCON

DATA PROCESSING STAFF

Saudi Arabia

The Saudi American Bank is a rapidly expanding organisation in Saudi Arabia; we maintain three data centres in the Kingdom, each with two Perkin-Elmer 3220 computers, with 1 MB of memory each and 356 MB disc drives for on-line storage. Out of each data centre an on-line real-time banking system is run with terminals in remote locations. Now we are looking for a number of experienced data-processing professionals to take two-year contracts, with possible extension to help continue our expansion.

Systems Analysts

You should have at least three years' experience in transaction processing systems for an on-line real-time environment.

Experience of data-base management systems and automation projects for banking applications would also be expected.

You would be based at our head office in Riyadh.

For all positions we offer an attractive tax-free salary, free furnished housing and regular leave with paid air transportation for your whole family.

Please send a full CV and salary history to:

Head of Personnel Recruitment, Saudi American Bank, P.O. Box 833, Riyadh, Saudi Arabia.

SAUDI AMERICAN BANK

WE HAVE MOVED!

PLEASE NOTE NEW ADDRESS

Steve Rhodes (Project Manager)
EDG ENGINEERING INTERNATIONAL LIMITED
42 Bond Street, Brighton, Sussex BN1 1RD
Telephone (0273) 21911

Computer Staff Where are you going in 1981?

Our Client who specialises in large mainframe service bureau activities has asked BLACKWOOD ASSOCIATES to assist them in the recruitment of experienced men and women who are seeking and possess the ability to take up challenging roles within their organisation early in the New Year. Vacancies existing mainly in the Greater Midlands are for the following personnel:-

Operations, Software, Telecommunications Managers

Operating dual IBM 3033's providing a full range of Online and Batch facilities based on an extensive BSC, ASYNCH and SDLC teleprocessing network.

Systems Programmers

Required to both support existing facilities (e.g. MVS/SE RL2, JES2, TSO, IMS, TCAM, VTAM, NCP) and to help develop and implement new facilities including 3033 Systems Extensions, MVS/SP Products and IMS extended facilities.

Project Leaders, Analysts and Programmers

Experienced professionals to sustain the rate of application development required by user companies. Practical experience in the development and control of IMS DB/DC systems using either COBOL, PL/I or Assembler would be considered an advantage but should not be regarded by experienced people as a mandatory necessity.

Strategic Planners

The rate of technological change both apparent now and in the foreseeable future necessitates the provision of additional senior technically and business orientated personnel to assist in planning for a future comprising Distributed Data Processing, Electronic Office Systems and Plant Automation.

If you consider that your experience and ability qualifies you to fulfil one of these positions then our Client's senior staff will be available to discuss details directly with you at our offices on:

Thursday 8th January and Friday 9th January, 1981, between 4.30 and 7.30.

Call in for an informal discussion with our Client or telephone Roger Carr for an application form.

Blackwood Associates Recruitment Consultants

26 Waterloo Street, Birmingham B2 5TJ.
Tel: 021-233 2921 (24 hr. service).

A Member of the CPS Group of Companies.

OUTSTANDING BUSINESS OPPORTUNITIES IN MINI COMPUTERS

We are a California-based Electronics Company. We are looking for a small number of distributors or self-employed representatives to take up franchises to sell our unique range of micro-computer products. You will need to show substantial depth of experience in and knowledge of the microcomputer peripheral add-on market.

Apply initially in detail, in the strictest confidence and stipulating any conditions you require, to the attention of Mr. D. Smith, Philip Smith Management Consultant, 85-87 Jermyn Street, London, SW1Y 0JD. (2801)

THE UNIVERSITY OF MANCHESTER CHAIRS IN COMPUTER SCIENCE

Applications are invited for two Chairs in the Department of Computer Science. The other chairs in the Department are the Chair in Computer Architecture and ICI Chair of Computer Engineering. Professor F. H. Summer (Barclay Chair in Microprocessor Applications in Industrial Process Control), Dr. Morris (Chair of Computer Programming).

Consideration will be given to candidates with an interest in computer architecture and those who may be active currently in research in any field of Computer Science.

There are many fields of interest following but the list is not intended to be exclusive or to imply any order of priority.

Artificial Intelligence, Commercial Data Processing, Computer Aided Design, Computer Architecture, Computer Networks, Robots, Theoretical Computer Science.

Applications (2 copies, 1 suitable for photocopying), giving full details of qualifications, experience and salary required, and the names and addresses of three persons to whom reference may be made, should be sent by January 14th, 1981, to The Secretary, The University, Manchester M13 9PL from whom further particulars may be obtained Quota Ref. 243/80 CW. (2837)

IBM SYSTEM 34 CROYDON

RPG II TEAM LEADER / SENIOR ANALYST / PROGRAMMER £8,500-£10,500

ANALYST PROGRAMMER £7,500-£9,500

Tylin Management Systems a leading IBM Computer Bureau and Software House and subsidiary of the Tate and Lyle Group requires additional programming staff for the implementation of a network comprising 8 System 34s linked to an IBM mainframe.

The Team Leader/Senior Analyst Programmer will

- manage a development team.
- design systems and produce specifications.
- visit users on site to discuss requirements, specifications, installation, user training, implementation etc.

The Analyst Programmer will

- assist in Systems Design
- produce program specification and write programs in RPGII
- already have between 2½ to 5 years' experience on System 34.

Benefits include 4/5 weeks' holiday, free meals, paid overtime, non-contributory pension scheme and free life assurance.

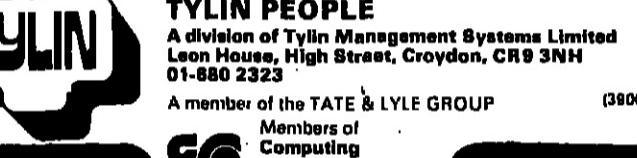
For further details please contact:

NIC POLAND TYLIN PEOPLE

A division of Tylin Management Systems Limited Leon House, High Street, Croydon, CR9 3NH 01-880 2232

A member of the TATE & LYLE GROUP

Members of Computing Services Association



WEST SUSSEX COUNTY COUNCIL

SUPPLY OF DATA PREPARATION EQUIPMENT

Notice is hereby given that the West Sussex County Council invites tenders for the supply of Data Preparation Equipment.

The appropriate Tender Forms, copy of the contract, Conditions of Contract and specification may be obtained upon application to Head of Computing Services, County Treasury Building, County Hall, Chichester, West Sussex.

The County Council do not bind themselves to accept the lowest or any tender received.

All tenders should be submitted on the above-mentioned Tender Forms and should be delivered to the County Treasury Building, West Sussex County Council at County Hall, Chichester, West Sussex, in a plain sealed envelope and postage paid on or before 12 noon on 26th January 1981. No stamp should appear on the outside of the envelope which would indicate the name of the sender.

(2880)

BOX Nos.

Box number replies should be addressed to:

Box No.
c/o Computer Weekly
2 Stamford Street
London SE1 5LU

SOFTWARE ENGINEER

The successful applicant would be required to work on design and development of advanced Real-Time machine tool CNC systems. He/She would be immediately responsible to a software leader working in a small design/development team, should have specific experience of any or all of the following particularly if applied to machine tool control:

Software: RTL/2 MACRO-11 RSX-11M
Hardware: DECLS1-11 DECPDP-11/34 TEXAS 9900 MP

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Experience in: design and production of "Multi-tasked" "real-time" software for time critical control applications. The testing and de-bugging of such software in a live (real-time) environment, distributed processing (with Micros).

A knowledge of: one or preferably more assembly languages, one or more "real-time" high level languages (e.g., RTL/2, CORAL etc.), the ability to think at "whole" system level, computer H/W mechanisms e.g. Interrupts, DMA, I/O etc. at an architectural level, plus an appreciation of the various "state" of the art" methods.

He/She will be expected to liaise with the H/W design team and, in time, to take over the more junior members of the S/W team.

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98C

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- * RSX-11 operating systems.
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COMPANY NEWS

ICL's results caused shock waves in the City. KEVIN CAHILL explains why they were mis-read.

ICL blamed for City 'overreaction'

THE most depressing aspect of ICL's results was the City's reaction. One shareholder ditched half a million shares on the day the results were announced. The subsequent fall in the share price from £108 before the results to 70p afterwards reduced the market valuation by ICL by over 30%.

This reaction, or "overreaction" as some industry commentators see it, has been laid squarely at the door of ICL by some City analysts.

Shock

Graham Meek of stockbrokers Wood Mackenzie, a leading ICL watcher in the City, described the figures as "poor" and the explanations as "inconclusive".

He was kind. Other City sources expressed outright shock at the results, and annoyance at the fact that the warnings given by ICL in November had not been clear enough to indicate the extent of the trouble.

How much further ICL could have gone by way of disclosure without breaking the rules is hard to know, but what is certain is that the City understands ICL less well than it should.

At least some of the blame for this must attach to ICL. For instance, not much is known about the balance inside the company between software and hardware. The whole emphasis of chairman Philip

about £70 million.

The end of the range most likely to have borne the brunt of the hardware sales slowdown is the large 2960 and above.

The effect will be significant.

The upper end of the 2900 range is expensive to build, expensive to warehouse and very expensive to support. Each unit could be tying up as much as £2 million in working capital, at an effective interest rate of about 16%.

ICL has never sold much of the 2900 series in America where its sales were nearly halved last year, but in places like Australia and Germany it has sold big machines and it is in these two countries that ICL is encountering Fujitsu head-on, and by all accounts suffering.

This must raise the question of whether ICL should continue with its large mainframes at all.

A spokesman at ICL agreed that the trend in sales before the recession struck was "towards the lower end of the range." However painful the surgery at Winsford and Dukinfield may have been, therefore, more may have to follow if ICL is not to discover, that it still does not recover sales at the top end as a result of Japanese competition.

In terms of sales ICL had a boom year in what it describes as Africa, which in practice means South Africa, for an estimated 80% of this business. Here again, ICL may be caught out if the widely expected trade embargo is imposed next year.

Fears

The huge loss sustained by the Lloyd's insurance market has made the City sensitive to figures relating to repurchases from leases, and the fact that ICL increased its provision for repurchase from £7.8 million last year, to £19.1 million this year, caused concern.

This is more than the doubling of sales to the leasing companies would normally account for, but is still in accordance with the caution



ICL chairman Philip Chappell... only a passing mention for software and services.

ICL has exercised in this area over the years, according to a spokesman.

One City analyst expressed concern that ICL might be filling warehouses with repurchased machines and might have to face the kind of write-off announced by Burroughs last week.

ICL told Computer Weekly that its provision for repurchase was conservative and that ICL's experience this year was normal. In practice, most of the machines coming back to ICL were outright purchases originally and are being taken back at discounts on new equipment, that are decidedly low.

Pricing on the ME29 has been particularly aggressive, with the majority of purchasers offered no discount on the return of equipment.

Leeds University has been offered little more than £4,000 for a working 166.

If the value of its shares means anything to ICL, it should concentrate in the immediate future on explaining itself to the City, rather than selling itself.

With over £300 million worth of revenue coming from services and software and a runaway success

Fascia success

SALES of the RTZ Fascia financial software package have passed the £1,000,000 mark. The package is designed to maintain a company's fixed assets on the new current cost accounting basis. It is sold outright, and now has over 160 users.

It also anticipates similar business in the building society sector and is developing a dispenser which will take the pass book issued to society savers.

The societies view the pass book as essential both to attract and retain savers.

CW SHARES TABLE

Dates: 12/12/80

	London Stock Exchange		US Stocks		
	Stock	Pence	Stock	Pence	
1980	High	Low	High	Low	
1/1	Acorn (Soft)	103	-	212	114
2/2	DEC (25p)	102	-	222	112
3/3	B Nov Kerm (25p)	102	-	45	11
4/4	Com (11.1) (25p)	98	-	122	11
5/5	Da La Rue (25p)	780	-	128	11
6/6	Elan (25p)	102	-	128	11
7/7	Ferranti (10p)	472	-	128	11
8/8	ICI (25p)	74	-	128	11
9/9	Kalamosco (10p)	61	-	128	11
10/10	Marconi (25p)	68	-	128	11
11/11	Mitredale (25p)	70	-	128	11
12/12	Office Direct (10p)	225	-	128	11
13/13	Office Direct (10p)	225	-	128	11
14/14	Plastics (25p)	270	-	128	11
15/15	Racial Elect (25p)	320	-	128	11
16/16	Registrator (25p)	310	-	128	11
17/17	Telecom (25p)	125	-	128	11
18/18	Telecom (25p)	125	-	128	11
19/19	Telecom (25p)	125	-	128	11
20/20	US Stocks				
21/21	Amadeus	325	-	128	11
22/22	Amgen	22	-	128	11
23/23	Amoco Pro	192	-	128	11
24/24	Burroughs	502	-	128	11
25/25	Compaq Computer Sciences	102	-	128	11

The table shows the closing prices in London on Friday and in America on Wednesday. The share index is based on the prices of the UK companies in the table. High and Low have been adjusted where necessary.

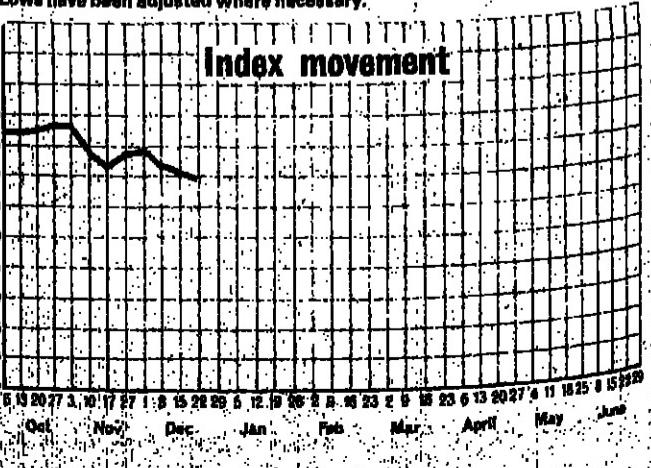


Figure 1. ICL's Preliminary results to September, 1980.

DG results are below company's expectations

HIT by inflation and increased expenses in the US caused by overambitious expansion plans, Data General has reported disappointing results for its 1980 financial year ended September 27. But the company has continued to do very well in Europe, where revenues jumped 55% to \$166 million.

Unfortunately, most of DG's business still comes from the US, which is why the company reported a fiscal 1981 net profit which was only 10% up on the previous year. The net profit figure of \$55 million and the fiscal 1980 turnover of £654 million, 29% up on 1979, have both been described by Data General president Ed de Castro as "below our expectations."

De Castro said that these "economic uncertainties" would continue to affect the delivery of DG products adversely during the first half of the 1981 fiscal year. But he added: "We continue to control costs, carefully assess employment needs and tightly manage assets. We look forward to continued growth in

the second half of the year, and we expect to meet our financial targets."

FormScan, the Somers-based supplier of the Alphaword OCR reader, has announced a turnover of more than £1,000,000. The company, which recently opened offices in Holland and Germany, expects growth at the present rate to be maintained.

'Concrete' services move

In a somewhat unusual move Blue Circle Industries, the £500 million a year cement giant, has taken a 26% stake in the comparatively small computer services group G. B. Jackson Associates.

Jackson's, based in Chichester, provides a range of sales and accounting packages designed around the Honeywell Level 6 minicomputer.

According to information manager Andrew Bond, Blue Circle became interested in Jackson's following the successful implementation of a general ledger package.

The package was installed and completed three months after Jackson's

was selected to do the job. This was considered exceptional performance, and as well as the Blue Circle equity participation, Jackson's is now doing additional work in payroll, despatch and stores work.

Jackson's has been in operation since 1973 and provides commodity brokers to the City of London with in-house and online bureau services.

Last year (1980) Jackson Associates reported turnover of £1,45 million and profits of £110,000. Turnover this year is expected to exceed £3 million, according to managing director Barry Jackson.

Castro said that these "economic

uncertainties" would continue to affect the delivery of DG products adversely during the first half of the 1981 fiscal year. But he added:

"We continue to control costs, carefully assess employment needs and tightly manage assets. We look forward to continued growth in

Turnover static for NCR UK

LITTLE if any growth in turnover is expected from NCR's UK company for the year just ended, despite a good return in the terminal and non-computer banking sector.

Board director Sean Dixon-Child says there will be "no significant difference" in turnover for the year ended November 30, 1980 compared with the previous year.

The turnover last year was £12.4 million giving a profit of £1.1 million. UK turnover including hardware sales, various support, engineering and other services, the Dundee factory and a small contribution from Commonwealth countries like Cyprus, Tanzania and Kenya.

The expected lack of growth this year is put down by one City analyst to falling cost of hardware and is not unexpected. NCR in Britain is primarily a hardware company, with only a arm's length relationship to allied software sales through other companies.

With the ME29, ICL has the basic ingredients for expansion and success when the recession lifts.

In the meantime it is doing much better than its cousin in France, CII-Honeywell Bull.

Looked at from inside the industry, the principal question must be how the company will meet the developing threat in Germany and elsewhere, from the Japanese mainframes.

NCR supplies cash dispensers to the Midland, National Westminster and Barclays Banks (Lloyds), the other big clearing bank, being supplied by IBM.

NatWest is aiming to install

NCR dispensers at the rate of

about five a week in 1981.

Dixon-Child says NCR aimed to sell 5,000 dispensers by 1985 but it had already sold 1,000.

There are currently about 7,000 branches of the four big banks, so NCR is aiming for the major part of this market.

It also anticipates similar business

in the building society sector

and is developing a dispenser

which will take the pass book issued to society savers.

The societies view the pass book as essential both to attract and retain savers.

This year's expected setback comes at the end of a period in which the company's sales of cash dispensers, cheque encoders, sorters and the like to the banking sector have held up well, according to Dixon-Child.

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tor and is developing a dispen-

sing which will take the pass book issued to society savers.

The societies view the pass book as essential both to attract and retain savers.

Entity types chosen should describe permanent states within the boundaries of the enterprise. That is to say, it does not matter that the state may change outside the area relevant to the enterprise.

Example 1. "In-Patient" and

"Out-Patient" are not stable

states but are affected within our

area of study by the events

"Patient admitted to Hospital"

and "Patient discharged from Hospital". These two classifications would not therefore be used as entity types.

Entity sub-types are stable

states within our

area of study.

PEOPLE and EVENTS

New chair at Queen Mary College London

SENIOR research consultant Professor John Iliffe, visiting professor at Queen Mary College, London University, has been appointed to the new chair of information systems science and technology at the college.

Prof Iliffe, who will be in the Department of Computer Science and Statistics which plans, with the Department of Electrical and Electronic Engineering, to offer in the near future, a four-year degree programme in the field of computer systems technology.

Before that, starting in October



Harris Information Systems International Division has made five senior sales appointments. They are (left to right): Clive Boon, Bill Williams, Allen Currier, Mike Thatcher and George Hood-Leader. Seated in front is Frank Walters, general manager.

BETA re-elects its president for 1981

CHAIRMAN of the Frank Wilson group of companies, Bryan Wilson, has been re-elected president of the Business Equipment Trade Association for the second successive year.

BETA represents the interests of manufacturers and sole concessionaires of all types of business machines and systems, computers and associated peripheral equipment in the UK.

In his acceptance speech, Wilson called for a single integrated voice, data and image communications network in British Telecom. He also criticised the high price that industry pays for energy in the UK, saying that he failed to understand how the present government, as a champion of freedom and private enterprise, could indulge in de-

liberately manipulating the price of gas for non-commercial reasons.

Wilson's involvement with the association began in 1950, when he became executive representative of his family company, Frank Wilson Filing Ltd.

The company was established in 1958,

and has offices in London and South-

port.

He was re-elected to the council five years ago and made vice-president in 1978. He was also honorary treasurer from 1976 to 1979.

Brian Gifford of Nexus UK and

Larry Lewis of Mulling and Mechanisation were elected vice-presidents of the association. The two other vice-presidents, Denis Blackwell of ICL and Rex Howell of Dymo Business Systems were re-elected.

Dave Ware and Edwin Monger have been appointed to the board at Dicoll Electronics. Ware is the company's sales director, formerly sales manager. Monger was company secretary and is now financial director.

David Carlton has been promoted from financial controller to financial director at the Racal-Redac group. He joined the company in 1979.

Steve Doig has joined Wilkes-PCA Data Supplies to run sales and marketing operations for the Wolverhampton and Warrington Online Stores. He joined the Wilkes group in 1978.

Michael Roberts has been appointed to lead the sales team at Jenson Computer Systems of Bristol. He is a member of the Scottish Institute of Chartered Accountants and the Institute of Marketing. He previously worked for Gwdwin Warren Engineering as a marketing director.

Ian Powers has moved from Motorola Semiconductors to develop all network and firmware products at Zyner in Uxbridge.

Nigel Roberts has been appointed business development manager, marketing management information systems at GSI UK. He was formerly statistician and systems analyst with ICL Dataskill's advanced systems sector.

Gillian Heath has been appointed sales executive at Sigma Electronics Systems. She previously worked for Marconi Space and Defence Systems as systems engineer, and later gained experience in sales and support with Eiscint.

Geoffrey Johnston has been appointed Senior Support Manager at Peter Merrills Associates. He was previously with SSI International. Barry Mitchell joins the company from Data 100. He has been in the computer industry for 17 years, and his previous employers have included Plessey and the Rank Organisation.

John Ing has been appointed by Peric International to be responsible for the launch of its range of serial printers throughout Europe, Africa and the Indian subcontinent. He joined the company as district sales manager, having previously been product marketing manager with Documentation.

Barry McTernan has joined GMS Computing as head of consultancy. He joins from Coopers and Lybrand Associates.

Bob Cardwell has joined the Daniel Triumvir Consultancy and its related organisation, the Senior Computer Contracts Register, as senior partner, with responsibilities in the insurance and finance sectors. He was previously with IBM UK for 12 years, and head of management services with a major Lloyd's broker.

Derek Pay, formerly a director of Consultant Systems, has been appointed sales director at Tempiptron. Another newcomer to the company is Raj Gupta, who takes over project management from the final 15% of the team. Earlier he worked as corporate planning and projects executive. Two of the company's senior engineering staff have been promoted. Peter Bowes, formerly technical manager, is now applications manager and Charles Toogood, previously senior electronic engineer, becomes engineering manager.

David Lyons will be director of Input's European help service programme. He was previously engineering services marketing manager.

Richard Muirhead has been appointed data processing manager at Swift Chemicals Company. He was formerly systems manager for Prescind.

Peter Corke has joined Hamlin Electronics as sales engineer. He was previously with Mann Components.



Graham Hallatt has joined Lowndes-Ajax Computer Services as a director. He will take responsibility for the launch of new ventures in the UK. Since 1977 he has been managing director of Wellorax, the specialist IBM small systems company.

DIARY

JANUARY 6 Micrographics, IDPM Birmingham branch, Saracen's Head, Stratford Road, Shirely, 7.30.

JANUARY 13 Protection for Software, BCS Merseyside branch, Faculty of Science Lecture Theatre, Liverpool University, 6.00.

JANUARY 13 The Local Computer Scene, Past and Present and Future, IDPM Hull branch, Hull Crest Hotel, Ferriby High Road, Ferriby, Ferriby, North Humberside, 7.15.

JANUARY 13 Artificial Intelligence - Voice Recognition, IDPM Essex branch, County Hotel, Chelmsford, 8.00.

Meeting, IDPM Scottish branch, Speaker from CBI, Glasgow.

JANUARY 15 Meeting, IBM Guide Set Group, IBM Basingstoke Street, London EC1. Details: (01) 828-8104.

JANUARY 21 Protection for Software, BCS Merseyside branch, Caversham Bridge Hotel, Reading, 7.30.

JANUARY 28 Current cost accounting, presented by Safe Computing, IDPM Sheffield branch, Grosvenor House Hotel, Sheffield, 7.30.

JANUARY 31 Annual General Meeting, UCSD p-systems User Society, Dicoll, Dragon Hotel, Bristol, Tel: (0865) 58086.

Meeting, IDPM Central London Branch, Pearl and Dean Studio, 15 Broadwick Street, London W1, 6.00.

JANUARY 27 Microcomputing workshop, IDPM Scottish branch, Glasgow. Ticket holders only.

JANUARY 28 Microcomputer workshop, IDPM Scottish branch, Edinburgh. Ticket holders only.

JANUARY 31 Annual General Meeting, UCSD p-

systems User Society, Dicoll, Dragon Hotel, Bristol, Tel: (0865) 58086.

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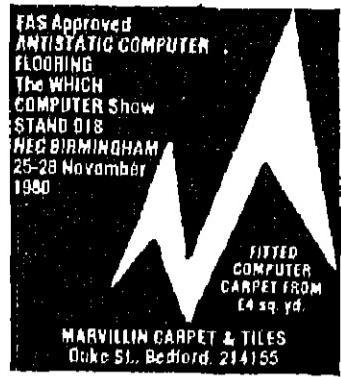
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NEWS IN BRIEF

Deadlines met online

WOLVERHAMPTON'S Express and Star evening newspaper is the first daily publication to introduce an online news gathering service with the agreement of the unions. The introduction means reporters can transmit stories rather than phoning them in — a saving of 10 minutes per story on average.

From Tuesday December 16, journalists sat at Delta Data 2100 VDUs and transmitted their copy to a PDP-11/70.

IBM scores

LIVERPOOL University has gone to IBM rather than ICL for a machine to relieve the workload on its ICL 1906 mainframe. The four-megabyte IBM 4341 in order will support 1200 megabytes of Memorex disc storage and 40 Memores 1377 display terminals. It will service more than 60 simultaneous terminal users.

Two Pi takeover

IBM-compatible minicomputer builder, Two Pi, is to be bought by Four-Phase Systems of Cupertino, California. Four-Phase is the firm whose distributed processing kit is built and sold under licence in Europe by Philips, the existing Two Pi parent company.

Apple windfall

APPLE Computer Inc finally placed its shares on the over-the-counter market in New York on December 12. Five million shares were offered to the public at \$22 each. By the end of the first day's trading, the shares had reached \$29. This gave Apple a market capitalisation of \$1.56 billion, and made the two founders of the company, Steve Jobs and Steve Wozniak, worth together more than \$700 million.

Council preferred DEC to local firm

LEEDS-BASED Systime has been at the centre of a major controversy in West Yorkshire. It was created by the County Council's decision to order two VAX machines worth nearly £600,000 from Digital Equipment rather than from the local systems supplier.

Systime chairman John Parkinson said his company could have supplied the VAX machines at a lower price than DEC, with a higher UK added value.

He thought that the council had made a fundamental mistake in opting for DEC's VMS operating system rather than for Systime's System.

Parkinson said that Systime had not been asked to tender for the contract. Then, after heavily publicised criticisms of the council's decision by people outside Systime itself (including local politicians and the Leeds Chamber of Commerce) engineering officers of the council questioned whether



Parkinson ... "It's crazy."

Systime could handle the job. The VAX machines will be used for structural and traffic engineering work at West Yorkshire's Wakefield head office, and John Parkinson pointed out that Systime could have supplied the necessary applications packages just as easily as DEC.

Parkinson described the attitude of the West Yorkshire engineering executive as "entrenched".

Council engineers agreed to stand by its decision to buy from DEC.



Morris Schwartz (right), manager of ICL's new Bristol showroom, with Norman Strangelove, SW area manager of the company.

High Street computer shops

THREE major companies — ICL, Xerox and Lion Microcomputers — have entered high street computer retailing with new showrooms in Brighton, London and Bristol.

ICL's Computer Point in Bristol represents a departure from its UK network of Customer Centres in which there are appointment-only demonstrations of equipment.

The Bristol showroom will allow passing business people to pop in for advice and demonstrations, with particular emphasis laid on specialised software applications.

They will include items of in-

terest to solicitors, estate agents and travel agents as well as general accounting and production packages.

Computer Point is situated at Brigstocke, 5 Welsh Back, Bristol BS2 4SP.

Lion Microcomputers has

opened its shop at 21 Bond Street,

Brighton. It offers a wide

hardware and software range, publications library, and a repair and maintenance service.

Executive director Andrew Mar-

galla commented: "Currently,

Micro prizes

THIR Scottish Industry/Education microelectronics working party is running a competition and offering cash prizes for microelectronic application projects in colleges throughout the country.

If IBM loses it could be fined as

well as being forced to change its

practice in the EEC.

Xerox has chosen Holborn as site for its second London branch. Equipment covers the range from calculators to minicomputers and features suppliers like Apple, Hewlett-Packard and National Pa-

nasonic.

Brighton has a couple of microcomputer outlets. Tandy has

a store that was doing well and an

independent concern offers the

PRT. However, there is no Apple

dealer in Brighton, so as an

authorised dealer, we hope to cor-

rect the market."

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Telecoms Council fails to gain support

THE Telecommunications Council has failed to gain the support of the main organisations it was set up to unite.

At its launch in November, a spokesman said he expected companies and users to be associated with the council through their trade associations and not through individual membership.

But the Business Equipment Trade Association, one of the mainstays of the new pressure group, this month withdrew its support. Council president Lord Morris said he had been opposed to this arrangement from the beginning.

"It would have made the council too remote from the issues," he said, and would have generated conflicts of interests in delegates between their employment and their various associations.

Other target organisations have decided against joining after initially expressing interest, including the Electrical Engineering Association, the Telecommunications Engineering and Manufacturing Association and the British Radio Equipment Manufacturers' Association.

The Telecommunications Man-

agers' association and two mobile radio associations are continuing their membership and Lord Mor-

ris said he was optimistic about individuals and companies joining.

Prices start from £4460 for the MP100 and £5076

for the MP200 systems. Systems range from floppy

disc through cartridge to Winchester storage.

Comma offer "off the shelf" delivery of complete

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EEC lists objections to IBM practices

MORE than six years after the start of its investigations into IBM's business practices in Europe, the EEC has filed a "statement of objections" against the industry giant.

Among other demands, the EEC wants IBM to stop including a minimum amount of main memory in processor prices, to make more systems software freely available to plug compatible manufacturers, and to provide interface information earlier than at present. Memorex was the main complainant to the EEC over the latter issue.

IBM pointed out that some of the objections raised by the EEC were similar to those already dealt with in US litigation and resolved in IBM's favour. It was referring to the anti-trust suits by Memorex, Telex, Calcomp and Transamerica. IBM said that it was confident that it "fully complied with the rules of the EEC".

IBM will now have to respond to the EEC complaints in the form of oral presentations before the Commission. If the EEC stands fast in its complaints, IBM could appeal to the European Court of Justice in Luxembourg, whose ruling would be final.

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